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ABSTRACT

This study attempted to identify school district factors that contributed to variation in aggregate levels of student achievement in reading and mathematics. A number of independent variables were used to attempt to identify district level factors that impacted aggregate levels of student achievement. These included measures of pupil-teacher ratios, administrative intensity, the number of professional support staff, teacher qualifications, fiscal resources, per pupil cost, size, and the number of minorities. A survey instrument was developed to measure teacher perceptions about eight organizational features of school districts. Data were collected from 50 randomly selected Nebraska school districts, and teacher survey responses were received from at least 3 teachers in each of 38 of these districts. Findings contradict some conventional beliefs about what contributes to student achievement. No significant relationship was found between size and achievement, and no significant relationship was found between teacher education and student achievement. It is quite possible that there was some peculiarity about the sample of schools that caused these contradictions, but findings do show the complexity of explaining aggregate achievement results. Appendixes contain the survey and the poem by Lewis Carroll, "Jabberwocky," that inspired the title of the report. (Contains 15 references.) (SLD)

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"Beware the Jabberwock, my son! The jaws that bite, the claws that catch!" Measuring school district outputs by school district inputs

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Summary

For some who have long been associated with education, the current accountability and testing emphasis takes on some of the fearsome elements of Lewis Carroll's poem, *Jabberwocky*. The Jabberwock, a mythical creation of Carroll's, had jaws that bite and claws that catch and eyes of flame. And it whiffled and burbled as it went along. Could this be a metaphor for the accountability movement in education? One wonders what sort of sound Carroll might imagine the "accountability" movement makes as it whiffles and burbles along. And, social cynic as he sometimes was, Carroll might hope that some heroine (or hero) would come along and, with her vorpal blade, go snicker snack and leave the accountability movement dead. For those interested in this possible sense behind nonsense, the poem is attached as Appendix B. We begin our exploration with Carroll's poem because try as we might, we found no powerful connection between the characteristics of school districts and the achievement of their students. The present study is based on the dissertation research of McLellan (2002) and West (2002). We have some possible explanations for this result at the end of our paper but such a finding leads us to suggest that we should beware of pronouncements of simple causality regarding student achievement.

Given the renewed interest in examining accountability at the school district level, efforts to continue a long strand of research examining school outputs are timely. This study partially replicated an earlier landmark study by Charles Bidwell and John Kasarda (1975). Like the authors of the earlier study, we sought to identify school district factors that contributed to variation in aggregate levels of student achievement in reading and mathematics. The dependent variables of the study were reading and mathematics achievement. A number of independent variables were used to attempt to identify district level factors that impacted aggregate levels of student achievement. Those variables included measures of pupil-teacher ratios, administrative intensity, the number of professional support staff, teacher qualifications, fiscal resources, per pupil cost, size, and the number of minorities. We used these variables as did Bidwell and Kasarda in an effort to model the forces behind school achievement. We expanded the model used by Bidwell and Kasarda to include additional factors that we reasoned could impact

achievement. A survey instrument was developed to measure teacher perceptions about eight organizational features of school districts:1)district focus on student outcomes; 2)district leadership; 3) organizational structure; 4) communication practices; 5) conflict management; 6) human resource management; 7) encouragement of participation; and 8) support for creativity. This instrument was completed by teachers; these data provided us with teacher perceptions about school district inputs.

Background

Policy makers and educators alike wish to know if schools are doing all they can to maximize student achievement. This focus on student achievement has influenced every sector of schooling. Nowhere is this new political landscape more readily apparent than in the new federal act, No Child Left Behind (NCLB).

> *The NCLB Act will strengthen Title I accountability by requiring States to implement statewide accountability systems covering all public schools and students. These systems must be based on challenging State standards in reading and mathematics, annual testing for all students in grades 3-8, and annual statewide progress objectives ensuring that all groups of students reach proficiency within 12 years. Assessment results and State progress objectives must be broken out by poverty, race, ethnicity disability, and limited English proficiency to ensure that no group is left behind. School districts and schools that fail to make adequate yearly progress (AYP) toward statewide proficiency goals will, over time, be subject to improvement, corrective action, and restructuring measures aimed at getting them back on course to meet State standards.*

This growth in state accountability schemes, a fire now receiving new fuel by the NCLB act, has captured significant attention from practitioners across the nation.

For the purposes of this study, please note that NCLB requires a focus on school districts as a unit of analysis. Thus, the lens of accountability has shifted from the student, classroom, and teacher to the school and to the whole school district. As an example, Gullat and Ritter (2002) surveyed all fifty state departments of education to identify the accountability tools used to assess student achievement. It is not surprising that they found that many states do rank schools and or districts on student achievement. The pages of practitioner oriented journals now urge attention to standards and even

provide tips to practitioners as to how to improve student achievement (Hoover, 2002; Lashway, 2002; Gandal & Vranek, 2001). This study examined the efficacy of such attempts to predict student performance using school district characteristics.

Theoretical Framework

This contemporary interest in the performance of the school or the school district brings back a form of educational research that has been in hibernation for some time: the economic production function that seeks to evaluate outputs subject to inputs. Hanushek (1978), a prominent educational economist, advocated this approach to understanding how to make schooling more efficient. Levin summarized the educational production function: "The emphasis is on assessing school input-output relations that appear to be maximizing educational outcomes. The standard constrained-maximum model is formulated for the schools where output is reflected by a verbal achievement measure; inputs are composed of student characteristics, personnel attributes, facilities, and organizational variables" (Levin, 1971). One of the most far reaching and influential studies relating school inputs to school outputs was that of James Coleman and his associates (1966). The report examined achievement and demographic data from over 600,000 students across the country. The report troubled educators deeply because it suggested that home factors contributed more to explaining variation in student achievement than did school factors. A long list of production function studies (see Hanushek, 1978) followed the Coleman report. Madaus, Airasian and Kellaghan (1980) provided an overview of this research for the decade of the 70s. In eighties and nineties educational researchers tended to accept the conclusions of R. Edmonds that some schools are more effective than others (Edmonds, 1979). In recent years, ever insistent that schools must shoulder the responsibility for student achievement, the focus has drifted again toward an interest in school district factors that can be understood as important in increasing student achievement (Murphy & Shipman, 1998; Murphy, 2002).

One of the significant studies of the 1970s that sought to do discover the district inputs that increased student achievement was the Bidwell and Kasarda (1971) study of school districts in Colorado. The authors of that study examined a number of school district variables and their relationship to student achievement. Bidwell and Kasarda

found that increased district fiscal resources, lower student/teacher ratios, decreased numbers of administrators, and decreased numbers of non-white students all had a positive impact on student achievement (Bidwell and Kasarda, 1971). They found that school size had no direct impact on student achievement. But, as was common in production function modeling of achievement, the combined variables of the study explained only 25% of the variation in student achievement.

In the state of Nebraska, where this study was conducted, a partial replication of the Bidwell and Kasarda study was designed. Because Nebraska is a state with a large number of school districts, the school district as the unit of analysis was particularly feasible. At the time of the study, there were 227 Class III[1] school districts in the state of Nebraska Furthermore, recent state regulations had required districts to administer a standardized achievement test to all students in selected grades so there was an "output" measure. School district officials were not required to use the same test but they were required to test. Achievement and district data from the 1999/2000 school year were collected at the district level and permitted the analysis of the district variables that did or did not contribute to student achievement.

Method

The study was a quantitative study designed to measure the impact of selected school district variables on two dependent measures of student achievement: 1) reading achievement and 2) mathematical achievement. The school district was the unit of analysis and all schools were identified from a sample of the Nebraska Class III school districts (n=227). Fifty school districts were selected randomly. Data were collected for the academic year 1999-2000.

Dependent Variables

Because state policy permitted different districts to administer different standardized tests to their students, there was no common test score that could be used. This presented a challenge in the creation of the interval data that we wished to examine relative to achievement. Thus, we designed a conversion scheme in which we calculated

[1] Any school district embracing a territory having a population of more than one thousand and less than one hundred thousand inhabitants that maintains both elementary and high school grades under the direction of a single school board. (*Statistics and Facts about Nebraska Schools*. NE Dept of Education. 1984/85).

the percentage of student scores in reading and math that fell into one of four quartiles on whatever standardized test the district used. We then converted the percentages to weighted scores. The percent of students in the first quartile (highest) was multiplied by four, the percent in the second quartile was multiplied by three, the percent in the third by two, and the percent in the fourth by one. These were then summed to create a district score for each of the two dependent variables or "output variables".

Independent Variables

Measures of school district inputs were obtained from two data sources. The first was by using the data reported by all school districts on what is labeled the School District Report Card. These variables were: 1) School Size, 2) Fiscal Resources, 3) Percent of Disadvantaged Students, 4) Percent of Non-White Students, 5) Pupil/Teacher Ratio, 6) Administrative Intensity (FTE of Administrators), 7) Professional Support Staff (FTE of nurses, counselors, speech and hearing, etc), 8) Certificated Staff Qualifications (percent of teachers with Masters Degree). Each school district reported these data in the fall of 1999.

Additional measures of school district inputs were created through a survey(see Appendix A) that was administered to teachers in each of the fifty districts. Five teachers or 10 percent of the total number of teachers in each district were randomly selected and a letter was sent to them requesting that they complete the eighty item questionnaire asking for their perceptions about their districts. The questionnaire contained eight subscales as follows: 1)Perceptions Regarding Student Outcomes; 2) Teacher Perceptions of Leadership; 3) Teacher Perceptions of the Efficacy of Organizational Structure; 4) Communication within the Organization; 5) Perceptions of Conflict Management; 6) Teacher Perceptions of Human Resource Management; 7)Teacher Perceptions of Opportunities for Participation; and 8) Perceptions of Organizational Support for Creativity. Each of these subscales was supported in the questionnaire by ten different specific item as indicated below.

A. Student Outcomes (1, 9, 17, 25, 33, 41, 49, 57, 65, 73)
   "The degree to which the school district is seen as placing a high value on student outcomes."
B. Leadership (2, 10, 18, 26, 34, 42, 50, 58, 66, 74)

"The degree to which the school district is seen as having effective leadership."

C. Organization Structure (3, 11, 19, 27, 35, 43, 51, 56, 67, 75)
"The degree to which the organization structure of the school district is seen as appropriate."

D. Communication (4,12,20,28,36,44,52,60,68,76)
"The degree to which the school district is seen as having open communication."

E. Conflict Management (5,13,21,29,37,45,53,61,69,77)
"The degree to which disagreement is seen to occur when necessary and to be used productively."

F. Human Resource Management: (6, 14,22, 30, 38, 46, 54, 62, 70, 78)
"The degree to which the organization's human resources are sen to be well utilized."

G. Participation (7, 15, 23, 31, 39, 47, 55, 63, 71, 79)
"The degree to which participation is seen to be used."

H. Creativity (8, 16, 24, 32, 40, 48, 56, 64, 72, 80)
"The degree to which the organization is seen as being creative."

At the beginning of the study we assumed that some of these variables might be related to student achievement. We argued that variation in these factors could have an impact on student achievement. There is ample literature suggesting that a focus on achievement, that principal and superintendent leadership, that organizational features all should have some sort of educational impact. There was an internal logic to the notion that in organizations where teachers perceived a greater support for creative work that achievement would be impacted. Our assumptions subsequently turned out to be unfounded as we report in our findings.

In our administration of the survey we established a rule that in order to be included in the study, a district needed to return at least three teacher surveys to us. Our sample of fifty schools was reduced to 38 as we applied this rule. A least three surveys were returned from the teachers of each of the 38 schools in our final group. We were also able to obtain school district data for each of these 38 schools from the state report card or, in several instances, directly from the Nebraska Department of Education.

We conducted our analysis in two separate phases: 1) we analyzed the relationship between achievement and the school district variables from the state report card that paralleled similar variables gathered by Bidwell and Kasarda; and 2) we analyzed the relationship of achievement and the eight subscales on our questionnaire. In

addition we constructed four regression models seeking to explain the relationship of our dependent and independent variables

We report the results of our study in the next section.

Findings

Relationship of Achievement and School District Report Card Variables

Table 1 below reports correlations between the two dependent variables of Reading (RA) and Mathematics (MA) achievement and the common school district variables we gleaned from the school report cards. Subsequently these same variables were used to model school district achievement and test the model using regression analysis.

Table 1

Correlation Table of District Input and Output Variables

	RA	MA	SQ	PT	PS	AI	SZ	NW	DS	FR
1 (RA)	1.00	.831*	.056	.012	-.021	-.197	-.014	-.634*	-.315	-.008
2 (MA)		1.00	.040	.099	-.019	-.183	-.013	-.663*	-.282	-.004
3 (SQ)			1.00	.115	.338+	.298	.359+	-.139	-.187	.319
4 (PT)				1.00	.429*	.220	.469*	-.049	-.129	.393+
5 (PS)					1.00	.696*	.786*	.241	-.034	.808*
6 (AT)						1.00	.777*	.449*	-.019	.808*
7 (SZ)							1.00	.188	-.024	.963*
8 (NW)								1.00	.577*	.266
9 (DS)									1.00	.030
10(FR)										1.00

* significant at .001; + significant at .05

RA= Reading Achievement
MA = Mathematics Achievement
SQ = Staff Qualifications
PT = Pupil Teacher Ratio
AI = Administrative Intensity
SZ = School District Size
NW = Non White
DS = Disadvantaged Students

PS = Professional Support Staff FS = Fiscal Resources

The only independent variable that appears to have a significant relationship to school district achievement was the percentage of non-white students in the district and this relationship was a negative relationship. Unlike the study conducted by Bidwell and Kasarda, we found no significant relationship, positive or negative, between achievement and staff qualifications , pupil/teacher ratio, professional support staff, administrative intensity, size, disadvantaged students, or fiscal resources. We did find, as Bidwell and Kasarda found, logical and significant relationships between the independent variables. For example, it makes sense that administrative intensity and professional support staff and size would have a strong positive relationship. Larger schools have more administrators and more support staff.

Next we modeled the relationship of these independent variables to both achievement variables. Table 2 presents the models for Reading Achievement and Mathematics Achievement and the R square achieved. The independent variables in the models were AI = Administrative Intensity; SZ = School District Size; SQ = Staff Qualifications; NW = Non White; PT = Pupil Teacher Ratio; DS = Disadvantaged StudentsPS = Professional Support Staff; and FS = Fiscal Resources

Table 2

Model One: Reading Achievement (1) and Mathematics Achievement (2) and District Variables

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.703	.494	.306	.3342
2	.765	.586	.432	.3599

The model for Reading Achievement (Model 1) did achieve significance (F=2.632; p.022) in explaining 49% of the variation in reading achievement. The model for math achievement (Model 2) also achieved significance at (F = 3.819; p. 000) in explaining 59% of the variation in math achievement. Further analysis of the regression coefficients indicated that in both models, the number of non-white students contributed significantly to the model (t=-3.575; Sig .001) in Reading Achievement and (t = 3.731;

Sig .001) in Math Achievement. None of the other coefficients for the other independent variables was significant. This suggests that most of the power of the Model 1 and Model 2 is due to the percentage of non-white students reported by the school.

In our population of schools, one significant outlier had significantly higher numbers of non-white students than any other. Removing that outlier caused the two models in Reading and Mathematics achievement to loose power and significance.

Relationship of Achievement to Survey Subscales

A similar process was followed to see if any of the eight district factors from the questionnaire helped to explain variation in achievement. Table 3 presents the relationships of these variables to achievement.

Table 3

Correlation Table of Perceptual Varibles from Teacher Participants

	RA	MA	OF	LD	OS	CO	CM	HR	PA	CR
1 (RA)	1.00	.831	-.023	.063	.108	.141	.157	-.250	.046	.211
2 (MA)		1.00	.019	.061	.213	.113	.265	-.218	.121	.329+
3 (OF)			1.00	.816*	.782*	.704*	.671*	.758*	.688*	.721*
4 (LD)				1.00	.897*	.795*	.774*	.775*	.744*	.704*
5 (OS)					1.00	.831*	.771*	.737*	.829*	.764*
6 (CO)						1.00	.684*	.744*	.812*	.757*
7 (CM)							1.00	.580*	.694*	.728*
8 (HR)								1.00	.655*	.571*
9 (PA)									1.00	.765*
10 (CR)										1.00

* significant at .001; + significant at .05

RA= Reading Achievement
MA = Mathematics Achievement
OF = Outcome Focus
LD = Leadership
OS = Organizational Structure
CO = Conflict Resolution
CM = Communication
HR = Human Resource Management
PA = Opportunity for Participation
CR = Encouragement of Creativity

The only independent variable that achieved even limited statistical significance was the measure of creativity which had a moderate and minimally significant relationship to math achievement. Given the consistent lack of significant relationships to the dependent variables, we concluded that either these measures are faulty or such district factors as leadership and conflict management and human resource management and creativity are not factors in achievement.

As we did with the data from the school report card, we created a regression model using the eight factors from the questionnaire to explain variation in achievement. Table 4 presents the models for Reading Achievement (Model 3) and Mathematics Achievement (Model 4) and the R square achieved. The independent variables in the models were AI = Administrative Intensity; SZ = School District Size; SQ = Staff Qualifications; NW = Non White; PT = Pupil Teacher Ratio; DS = Disadvantaged StudentsPS = Professional Support Staff; and FS = Fiscal Resources

Table 4

Model One: Reading Achievement (1) and Mathematics Achievement (2) and District Variables

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
3	.621	.386	.216	.3552
4	.691	.477	.333	.3901

Reading Achievement (Model 3) did barely achieve significance (F=2.275; p.05) in explaining 39% of the variation in reading achievement. We say "barely" achieved significance because if we take the p value to several decimal places, the statistic falls beyond our parameters for accepting significance (p ≥05028). Model 4 (Math Achievement) achieved significance at (F = 3.311; p. 008) in explaining 48% of the variation in math achievement.

In Model 3 the contributing significant coefficient was human resource management (t= -3.318, Sig .002). When we looked at the distribution of the responses to the ten items in our survey that formed the subscale of human resource management, we noted a bi-polar distribution. Some teachers in some schools saw a reasonable

allocation of human resources, saw teachers assigned appropriately, and judged their in-service activities to be of worth. These topics were addressed in the items of this subscale. Others viewed their schools as sorely lacking in this area. Thus, we think that the model for explaining reading achievement using the survey factors does not work as the distribution of this variable violates the assumptions of normal distribution for regression variables.

In the model for mathematics achievement, two coefficients achieved significance: Organizational Structure (t = 2.006, Sig .048) and Human Resource Management (t = -2.828, Sig .008). However, as was indicated earlier, the distribution of Organizational Structure violated the assumptions of a normal distribution. This was also true for Human Resource Management; the distribution of the responses on this item were heavily skewed. Thus, even though the model achieved significance, we can not trust the contribution of these two coefficients.

Summary of Findings

We find that other than the percentage of non-white students none of our independent variables, neither those from the School Report Card nor those from our perceptual survey of teachers, has a clear relationship to student achievement. While it is clear that the percentage of non-white students does depress student achievement, that effect was due largely to one outlier district, an effect that has a strong effect on the mean. Efforts to model student achievement using a production function approach do not work with our data as none of our regression models served as significant and trustworthy predictors of student achievement.

Discussion

Our findings contradict some conventional beliefs about what contributes to student achievement. For example, we found no significant relationship between size and achievement. Yet, most of our school districts could be classified as small school districts. Proponents of small schools typically argue that small size increases student achievement. For example, we found no significant relationship between teacher education and student achievement. Teacher education is believed to be one of the contributing factors to student achievement. Our survey which contained a number of

district items that logically could be thought to influence district achievement levels proved unhelpful.

Did we miss significant relationships? Possibly. Had we included many more districts perhaps we would have uncovered some effects that we missed due to our small sample size. Was there some peculiarity to our sample of schools that caused there to be too much homogeneity across our subjects? Quite probably. Many of our school districts are small districts set in small towns. Their student populations and teacher populations and demographics tend to be very similar. Because we could not run factor analysis on our survey, we do not know if our subscales vary independently of each other. Thus, we are not sure about its efficacy as an instrument to measure what we view as critical district variables.

There is another important possibility suggested by our failure to establish a clear relationship between school district variables and student achievement. In Nebraska, most school districts report that most students do well on standardized tests most of the time. Nebraska students typically score well. We also have noted that the schools in our sample were more alike than they were different. If these assumptions are correct, then what we find is that accountability measures of school district achievement under conditions of homogeneity may not tell us much. That is, unless there are significant differences across schools, education production function approaches may not discriminate very well. Part of the danger in measuring school district achievement in the way that we do is that we are forced into a process of artificial discrimination. We report the scores. And we rank order the scores so that there are winners and losers. Yet, if we looked at other variables to better understand achievement, we might find such rankings to be dangerously misleading. This is the potential nonsense that gets in the way of sense, the idea with which we began this paper.

Recommendations

While there are methodological limitations to this study, the lack of support found for many of education's prize shibboleths (small size, teacher student ratio, educated staff, strong leadership, etc.) as clear and causal indicators of student achievement raises questions. Efforts to explain aggregate achievement results at the school district level

must be conducted cautiously. Lewis Carroll's nonsense is no nonsense for school districts. Measures of student achievement are "jaws that bite and catch" for the educators who must attempt to account for what students learn or do not learn. Beware the measurement Jabberwocky indeed! There is a useful metaphor in Carroll's poem that speaks loudly to those who believe clear and direct causality can be found to explain aggregate levels of student achievement.

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Appendix A

Survey of School District Organizational Health

This survey is designed to measure your perceptions of different parts of your school district. It contains eighty items, but does not take long to complete. Some items will appear repetitious. In responding to these questions, please base your responses on your perception of the total district rather than your specific building. Please circle the number to the right of the item that best expresses your agreement with the statement.

1 = Complete disagreement with the statement
2 = Some disagreement with the statement
3 = Some agreement with the statement
4 = Complete agreement with the statement

1) Measurable student outcomes are strongly emphasized in this school district. 1 2 3 4

2) Our superintendent is competent in his/her job. 1 2 3 4

3) This school district employs the right number of administrators. 1 2 3 4

4) Meetings here are usually worthwhile in this school district. 1 2 3 4 .

5) Administrators disagree a lot in this district. 1 2 3 4

6) Opportunities for personal growth are plentiful in this district. 1 2 3 4

7) My job is important to this school district. 1 2 3 4

8) Many people generate new ideas in this school district. 1 2 3 4

9) The administrators in this school district have clear goals. 1 2 3 4

10) Our superintendent sets a good example for principals. 1 2 3 4

11) There is little duplication of job responsibilities in this district. 1 2 3 4

12) In this district, we have meetings only when they are needed. 1 2 3 4

13) Administrators deal with each other in a friendly manner. 1 2 3 4

1 = Complete disagreement with the statement
2 = Some disagreement with the statement
3 = Some agreement with the statement
4 = Complete agreement with the statement

14) This school district does a good job recruiting new employees. 1 2 3 4

15) Teachers feel they have an important part in this school district. 1 2 3 4

16) Creative thinking is encouraged in this school district. 1 2 3 4

17) This school district is always trying to improve student achievement. 1 2 3 4

18) Administrators in this district are skilled in motivating teachers. 1 2 3 4

19) This district has the right number of administrators. 1 2 3 4

20) School administrators ask teachers into their offices for informal talk. 1 2 3 4

21) Teachers may disagree with administrators with no fear of being penalized. 1 2 3 4

22) People are assigned according to their abilities in this school district. 1 2 3 4

23) Teachers are invited to make suggestions in this school district. 1 2 3 4

24) The teaching staff looks at alternative choices before deciding on what to do. 1 2 3 4

25) In this district teachers are properly endorsed for their teaching assignments. 1 2 3 4

26) School administrators in this district are effective in their work. 1 2 3 4

27) In this district classified staff support the work of teachers. 1 2 3 4

28) Individuals feel free to discuss issues at meetings. 1 2 3 4

29) Administrators encourage debate about the best way to do things. 1 2 3 4

30) Assignment of a teacher is based on the background and education of the teacher. 1 2 3 4

31) The teaching staff is active in working to achieve district goals. 1 2 3 4

32) The teaching staff is always open to new ideas. 1 2 3 4

33) Teachers are recognized for superior performance of their students. 1 2 3 4

34) In the district as a whole, teachers trust school administrators in this school district. 1 2 3 4

1 = Complete disagreement with the statement
2 = Some disagreement with the statement
3 = Some agreement with the statement
4 = Complete agreement with the statement

35) When changes are needed in this district, they are made. 1 2 3 4

36) I am able to speak freely with school administrators. 1 2 3 4

37) There is very little conflict between teachers in this district. 1 2 3 4

38) This district does a good job using in-service dollars for staff development. 1 2 3 4

39) Teachers have the chance to express their feelings about important decisions. 1 2 3 4

40) Administrators openly praise creative teachers in this district. 1 2 3 4

41) Administrators often publicly discuss student learning outcomes. 1 2 3 4

42) Teachers accept administrative decisions willingly in this district. 1 2 3 4

43) Administrators know their jobs in this district. 1 2 3 4

44) Teachers know what is going on in this district. 1 2 3 4

45) Conflict is accepted well in this district and is used constructively. 1 2 3 4

46) People in this district are assigned to the right responsibilities. 1 2 3 4

47) Teachers are often asked to serve on committees with their administrators. 1 2 3 4

48) Teachers are coming up with ideas that are used by the district. 1 2 3 4

49) Student outcomes are the most important consideration in this district. 1 2 3 4

50) Administrative decisions this past year have been helpful for the district. 1 2 3 4

51) Every person has the authority to make decisions about their assigned area. 1 2 3 4

52) I can see administrators whenever I need to do so. 1 2 3 4

53) Teachers participate actively in settling issues. 1 2 3 4

54) Administrators view teachers as the district's top resource. 1 2 3 4

1 = Complete disagreement with the statement
2 = Some disagreement with the statement
3 = Some agreement with the statement
4 = Complete agreement with the statement

55) My ideas for change have been welcomed in the district. 1 2 3 4

56) Administrators often ask teachers for ideas. 1 2 3 4

57) Student achievement is highly valued here. 1 2 3 4

58) Administrators are highly respected in this school district. 1 2 3 4

59) No one part of this school district has too much power. 1 2 3 4

60) I always have information ahead of any changes that are planned. 1 2 3 4

61) Disagreement usually leads to improvement here. 1 2 3 4

62) This school district is fair to individuals. 1 2 3 4

63) Administrators accept ideas for doing new things. 1 2 3 4

64) Teachers are willing to try something new. 1 2 3 4

65) Teachers try to do things better than they did the last time. 1 2 3 4

66) Teachers are given enough authority to do their jobs in this district. 1 2 3 4

67) Teachers understand how their school district operates. 1 2 3 4

68) Teachers communicate well with each other in this district. 1 2 3 4

69) Teachers work for the best solution, not to win the argument. 1 2 3 4

70) Teachers have opportunity for growth in this organization. 1 2 3 4

71) Decisions are postponed if teachers don't agree. 1 2 3 4

72) Teachers in this district are known for innovative teaching. 1 2 3 4

73) Very little time is wasted in this school district. 1 2 3 4

74) Teachers have a clear understanding of district rules and regulations. 1 2 3 4

1 = Complete disagreement with the statement
2 = Some disagreement with the statement
3 = Some agreement with the statement
4 = Complete agreement with the statement

75) Teachers know how this school district operates. 1 2 3 4

76) Teachers have sufficient opportunity to plan together. 1 2 3 4

77) Teachers do not suffer when they disagree with administrators. 1 2 3 4

78) Teacher absenteeism is not a problem in this district. 1 2 3 4

79) Administrators are interested in teacher ideas. 1 2 3 4

80) Teachers are creative in this school district. 1 2 3 4

Biographical Data

1. Years experience_____

For each of the following questions, please circle the most appropriate response.

2. Primary grade level assignment:

   a. Elementary b. Middle Level/Junior High c. Secondary

3. In responding to this instrument I based my perception on:

   a. The district as a whole.

   b. The building that I work in.

4. When answering questions regarding administrators I based my perception on:

   a. All of the administrators in the district

   b. My building administrator.

Thank you for taking the time to complete this survey.

Questions about this instrument and study may be directed to Kent McLellan or Jeff West or Miles Bryant at the following:
Kent McLellan, Morrill Public Schools, 308-247-2149
Jeff West, Chappell Public Schools, 308-874-2911
Miles Bryant, University of Nebraska-Lincoln, 402-472-0960

Organizational Health Survey Factors

The Organizational Health Survey contains eight sub-scales or factors, each with ten responses.. These are identified below. Scoring on each factor should be done by adding the circled response for each item and dividing that total by ten, the number of items in each factor.

I. Student Outcomes (1, 9, 17, 25, 33, 41, 49, 57, 65, 73)
"The degree to which the school district is seen as placing a high value on student outcomes."

J. Leadership (2, 10, 18, 26, 34, 42, 50, 58, 66, 74)
"The degree to which the school district is seen as having effective leadership."

K. Organization Structure (3, 11, 19, 27, 35, 43, 51, 56, 67, 75)
"The degree to which the organization structure of the school district is seen as appropriate."

L. Communication (4,12,20,28,36,44,52,60,68,76)
"The degree to which the school district is seen as having open communication."

M. Conflict Management (5,13,21,29,37,45,53,61,69,77)

"The degree to which disagreement is seen to occur when necessary and to be used productively."

N. Human Resource Management: (6, 14,22, 30, 38, 46, 54, 62, 70, 78)
"The degree to which the organization's human resources are sen to be well utilized."

O. Participation (7, 15, 23, 31, 39, 47, 55, 63, 71, 79)
"The degree to which participation is seen to be used."

P. Creativity (8, 16, 24, 32, 40, 48, 56, 64, 72, 80)
"The degree to which the organization is seen as being creative."

This survey is based in part on original work done in the late sixties by P. T. Kehoe and W.J. Reddin, authors of the original Organizational Health Survey (1970). Not widely used, this instrument was reviewed negatively in the Buros Institute for Mental Measurement Yearbook. The current instrument is modeled after this original one but is focused on the school district organization.

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Scoring the Instrument

Add the factors associated with each sub-scale and divide by ten. This calculation will produce a score for each factor that is an average of the ten items in the sub-scale.

	Total Col. 1	Average Co. 2
Student Outcomes	____	____
Leadership	____	____
Organizational Structure	____	____
Communication	____	____
Conflict Management	____	____
Human Resource Management	____	____

Participation	____	____
Creativity	____	____
Total District Health Score (Average Col. 2)		____

Appendix B

Jabberwocky

(From the Looking-Glass and What Alice Found There, 1872)

'Twas brillig, and slithy toves
Did gyre and gimble in the wabe.
All mimsey were the borogoves,
And the mome raths outgrabe.

"Beware the Jabberwock, my son!
The jaws that bite, the claws that catch!
Beware the Jubjub bird, and shun
The frumious Bandersnatch!"

He took his vorpal sword in hand:
Long time the manxome foe he sought—
So rested he by the Tumtum tree,
And stood a while in thought.

And, as in uffish thought he stood,
The Jabberwock, with eyes of flame,
Came whiffling through the tulgey wood,
And burbled as it came!

One, two! One, two! And through and through
The vorpal blade went snicker-snack!
He left it dead, and with its head
He went galumphing back.

"And, has thou slain the Jabberwock?
Come to my arms, my beamish boy!
O frabjous day! Callooh! Callay!"
He chortled in his joy.

"Twas brillig, and the slithy toves

Did gyre and gimble in the wabe;
All mimsy were the borogoves
And the mome raths outgrabe.

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